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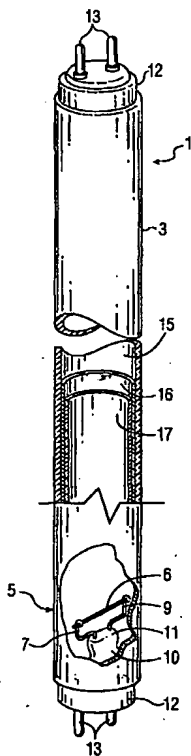
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[Continued on next page]

(54) Title: LOW PRESSURE MERCURY VAPOR FLUORESCENT LAMPS

(57) Abstract: A low mercury consumption electric lamp is provided having a layer of a luminescent material comprising a phosphor derived from a mixture of a mixture of a cool-white calcium halophosphate, a red-emitting yttrium oxide (YOX), a green-emitting cerium, terbium lanthanum phosphate (LAP), and a blue-emitting europium-activated barium magnesium hexa-aluminate (BAM).



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FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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29 June 2006

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

IB2005/050370

A. CLASSIFICATION OF SUBJECT MATTER

INV. C09K11/78 C09K11/80 C09K11/81 H01J61/44

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C09K H01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 339 093 A (GENERAL ELECTRIC COMPANY) 27 August 2003 (2003-08-27) paragraphs [0001], [0003], [0009], [0010], [0016], [0018], [0028], [0033], [0041] claims 1-10	1-13
A	US 5 714 836 A (HUNT ET AL) 3 February 1998 (1998-02-03) examples 1-3 tables 1-3 claims 1-27	1-13
A	EP 0 067 030 A (KABUSHIKI KAISHA TOSHIBA) 15 December 1982 (1982-12-15) page 5, line 3 - line 14 table 2 claims 1-8	1-13



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
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- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the International search

24 April 2006

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03/05/2006

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INTERNATIONAL SEARCH REPORT

IB2005/050370

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2003/076029 A1 (GRUBER WOLFGANG ET AL) 24 April 2003 (2003-04-24) claims 1-19 -----	1-13

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1,4-11

An electric lamp comprising a calcium halophosphate, an yttrium oxide (YOX), a cerium terbium lanthanum phosphate (LAP) and an europium barium magnesium aluminate (BAM) (claim 1,4-11).

2. claims: 2,12

An electric lamp comprising a calcium halophosphate, an yttrium oxide (YOX), a cerium terbium magnesium aluminate (CAT) or a cerium terbium gadolinium pentaborate (CBT) and an europium barium magnesium aluminate (BAM) (claim 2,12).

3. claims: 3,13

An electric lamp comprising a calcium halophosphate, an yttrium oxide (YOX), a cerium terbium lanthanum phosphate (LAP) and an europium chloro strontium calcium barium phosphate (SCA) or an europium strontium chloroapatite (SCAP) (claim 3,13).

INTERNATIONAL SEARCH REPORT

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